

HITACHI
Inspire the Next

Hitachi Application Reliability Centers

Get Your Cloud, Your Way.

Executive Summary

The cloud is accelerating data-driven innovation and business agility but capturing the full business value from cloud has been a challenge. The complexity of today's hybrid and multi cloud operating models is contributing to unexpected costs, outages, and compliance & security risks.

Hitachi Application Reliability Centers are redefining cloud operations by implementing new design principles that support rapid innovation while providing optimized and automated management of your cloud workloads. At Hitachi, we take a "design right" approach to ensure your application portfolios are designed through the lens of the business outcomes you want to achieve. We are transforming CloudOps by bringing the innovations of FinOps, DevSecOps, Data, Data Reliability Engineering (DRE) and Security Services practices closer together and fusing them around three core principles:

-  **Always-On**
Improved uptime for an uninterrupted business
-  **Reliable**
Built-in reliability and security from the get-go
-  **Cost-Optimized**
Save on cloud costs and lower overall TCO



Scalable applications require best-in-class performance to offer end-users an unparalleled experience that's fast, secure, and always-on. HARC helps organizations build and manage an "always-on," reliable, secure, and cost-optimized cloud, application, and data workloads, accelerating their time to market, and realizing the true potential of the cloud through continuous innovation.

Missed Opportunities Shift the Focus to Application Reliability

Many companies rushed to the cloud for its promise of cost savings and business agility. Instead, they got a declining ability to innovate new products due to the complexity of managing a sprawling, multicloud environment. They got hit with rising costs, performance and management issues on the cloud. These challenges hinder their ability to scale, innovate and bring new applications to market. Organizations have to “downshift” to a project-based approach, despite a market need to speed up and implement a product-based approach.

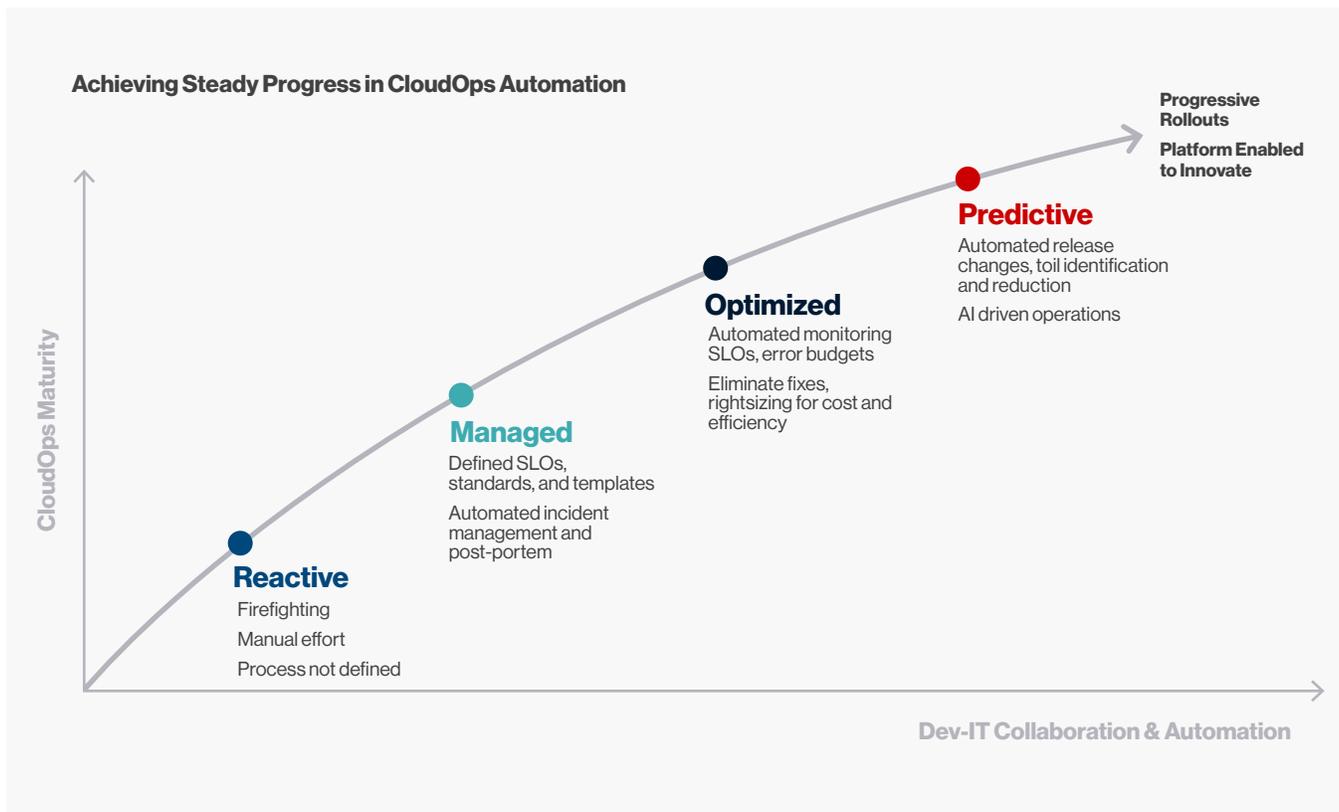
IT and business leaders also need help to gain complete visibility into all key operations metrics across workloads that are distributed between on premises and multiple cloud environments. Cloud operations and development teams’ priorities and KPIs are frequently different and sometimes competing. With conflicting priorities between development and operations, the application code becomes more unstable as additional features are added. Also, the difficulty of managing service levels while adding new application features can introduce security issues, making it more challenging to ensure the “always-on” reliability expected by customers and internal users.

Finally, the inefficient and ungoverned provisioning of cloud services by engineering and application development teams can increase the total cost of ownership (TCO) for cloud services. IT leaders often need help forecasting or controlling their rising cloud infrastructure costs. With cost overruns, they need more resources to innovate, build and manage new applications.

Introducing Hitachi Application Reliability Centers

Hitachi Application Reliability Centers (HARC) is Hitachi Vantara’s comprehensive, integrated portfolio of cloud and application professional and managed services offerings designed to address these challenges. Advisory and consulting services help you design, build, and operate a modern cloud architecture, while managed services ensure your cloud applications and workloads run reliably at scale and on budget.

Applying reliability, cost reductions and “always-on” workload optimization into the plan, build, and run workload lifecycle, combined with the proper development and operational tools and processes, HARC enables your organization to move from reactive operations to predictive operations. Purpose-built AI-driven automation tools and processes power this operational maturity of CloudOps.



HARC – Your Cloud Centers of Excellence

Wherever you are on your cloud journey, HARC will work with you to help migrate, modernize and manage your applications in the cloud. This enables faster time to market, delivering quicker, more innovative services for you and your customers. HARC ensures security, reduces downtime and provides reliability in your cloud infrastructure, application and data workloads.

Enabled by AI-driven accelerators, solution cores, tools, frameworks and people with the right skillsets—these physical and virtual centers of excellence assist you in managing and optimizing your cloud applications. You gain resiliency, higher performance, lower costs, greater security and better compliance. HARC delivers co-innovation and SRE as a service. This allows you to automate the lifecycle management (build, deploy, run and operate) of all your workloads running in the cloud (hybrid, multicloud, or distributed). And to provide a reliable, KPI-driven centralized cloud operation.



According to Forrester

The Total Economic Impact™ of Cloud and Application Modernization Services from Hitachi Vantara

Cloud and application modernization services from Hitachi Vantara help organizations migrate, modernize and manage applications in the cloud, enabling faster timelines and the latest processes and technologies.

“Without the tools and resources enabled by Hitachi Vantara, the engineering team would have spent more time trying to modernize applications. This cost avoidance translated to more than \$700,000 in total savings over three years.”

“Given the resources of Hitachi Vantara and its expertise in managing cloud projects, interviewees did not need to hire additional resources and avoided additional spending, which led to a savings of more than \$2.7 million over three years.”

FORRESTER®

Hitachi Application Reliability Centers (HARC) is Hitachi Vantara’s comprehensive integrated portfolio of cloud professional and managed services offering. It includes cloud migration, application modernization, custom application development services, FinOps, cloud and application workload management services. Hitachi Vantara helps organizations migrate, modernize and manage applications in the cloud, enabling faster timelines and the latest processes and technologies.

HARC are geographically dispersed physical and virtual centers of excellence where cloud applications are monitored and optimized by its professional engineers to ensure client defined KPIs are consistently achieved. Each site brings together best-in-class frameworks, design patterns, automated tools, and people to deliver SRE as-a-service and 24/7/365 cloud management and operations.



Advanced AI-based IP powers HARC

At HARC, we ensure you meet the expectations of your end users and internal users more effectively with an advanced AI-based observability robotics platform with Nyquist engine IP that ensures continuous uptime. It also provides 360-degree observability and performs automated workload health checks, AI-driven incident management, and remediation. This ensures you are continuing to optimize how you manage your cloud workloads — so that you are operating in a manner that helps to prevent, predict, deliver and scale business continuity.



114%
Return on
Investment (ROI)



\$2.03M
Net Present Value
(NPV)



7 months
Time Saved for
Cloud Migration

Source: "The Total Economic Impact™ of Cloud and Application Modernization Services from Hitachi Vantara," Forrester, Commissioned by Hitachi Vantara, February 2022.

Advanced AI-based IP powers HARC. Observability robotics platform with Nyquist engine delivers visibility and predictable “always-on” operations to your complex cloud environments.



Offerings of Hitachi Application Reliability Centers

With more than 4000+ certified cloud experts and 20+ years of Cloud and App modernization expertise in designing, building, and running your Cloud workloads in any hybrid, multicloud environment, HARC can be your cloud operations centers of excellence to monitor, run and optimize the process. HARC CoEs also support learning, co-innovation, experimentation, and proof of concept (POC) development with flexible offerings as follows:

- **Data Reliability Engineering**
- **FinOps Services**
- **Cloud Security Services**
- **Managed Services for Cloud Operations**

HARC's cloud modernization services are instrumental in laying the groundwork for state-of-the-art CloudOps. Combining Performance engineering with Resilience, chaos and Security engineering, Hitachi Vantara cloud experts ensure that you have the right architecture to make the most of your cloud. Our engineering-led approach brings engineering and operations teams together, working off a shared backlog validated by proven methodologies, tools and frameworks. This ensures that reliability takes over product features and functionalities.

Our Cloud FinOps services assess your cloud costs relative to benchmarks and identify areas for cost optimization, delivering average savings of 30%. Given that application design can be a significant source of cloud consumption costs, we help you design for cost to gain control of the new cloud consumption models.

Enhance the security and compliance of your cloud workload by integrating our security expertise, best practices, and partners' tools and capabilities.

Our suite of services lets organizations build multilayer security to protect infrastructure, pipelines, applications, and data, create a strong security posture and achieve continuous compliance.

We collaborate with your DevSecOps team to shield the 5Cs – Cloud, Container, Cluster, Customer data and Code so you can reduce Security Operational Cost and Complexity by an average of 30%.

Cloud-managed services, SRE services, SWAT Services, and DevSecOps Services are delivered through HARC physical and virtual centers of excellence (CoE). We work with customers to fully implement, manage and monitor top-to-bottom tech and process stacks for cloud workloads. We start by analyzing your current CloudOps environment across five dimensions: development, observability, resilience, scalability, and change management. Then we design and execute an end-to-end plan, build, deploy, and run lifecycle based on DevSecOps and SRE practices and your unique environment.

OFFERINGS	Cloud Advisory Services	Cloud Migration Services
Application Modernization Services	Digital Engineering Services	Cloud FinOps Services
Cloud Security Services	Cloud & Application Managed Services	RunOps Services

Key Benefits and Business Outcomes Delivered by HARC



Problem

IT and business leaders need help understanding all key operations metrics in the cloud. Cloud operations and development teams' priorities and KPIs are usually different and sometimes competing. This causes the code to become more and more unstable as additional features are added without ensuring reliability.

Solution

HARC manages cloud workloads for business continuity through an engineering-led approach and automation for an "always-on" business.

- Automates an incident management system, shifting responses from reactive to proactive and preventive, delivering highly available applications.
- Brings engineering and operations teams together to work on KPIs through a shared backlog. This ensures that reliability takes priority over product features and functionalities.
- Provides a managed service that continuously monitors your cloud operations, predicting and preventing bottlenecks and failure points.

HARC Delivers



Customers achieved a **50% reduction** in ongoing operating costs and a **60% reduction** in business risk.



Engineers found greater efficiency with application performance in the cloud environment and experienced fewer failures. Engineering teams, therefore, spent less time combating issues.



Our engineering-led approach brings development and operations teams together, working off a shared backlog with a continuous feedback loop between application developers and cloud operations teams. This ensures that reliability takes priority over product features and functionalities, guaranteeing an "always-on" environment and business.

HARC Outcomes

A Multinational Conglomerate in HVAC, fire, and security equipment wanted to establish always-on availability for its digital solutions and SRE organizations that were supporting platforms, tools, cloud operations and microservices hosted on Microsoft Azure.

- HARC took over management of the company's RunOps, delivered as a managed service. HARC worked hand-in-hand with the client's SRE design, security and product engineering teams to improve overall reliability, stability and security.
- HARC introduced continual service improvement (CSI) and automation to boost operational efficiencies.
- In addition, HARC deployed [SG42] observability across the client's vast infrastructure, tools and application landscape to proactively identify irregularities in application and platform behavior.

30%
productivity improvement
through automation

90%
detection of issues through
proactive observability

99.9%
consistent availability
ensured across all
production environments





Problem

The reality of cloud transformation is often one of siloed operations teams dealing with poor application reliability, faltering workload uptime and ever-increasing cloud costs. This forces organizations to focus internally on projects instead of developing and selling products.

There is an expectation that application reliability needs to be at 99.999%. However, at best, reliability could be more consistent and consistent. This impacts an organization's bottom line and credibility and results in a lower net promoter score (NPS).

Solution

HARC designs your application and data workloads for reliability, resiliency, cost, and security.

- Reassess your application and cloud workload needs from a business outcome perspective and build reliability and security into your applications.
- Design, build and manage the lifecycle of cloud-native applications and reliably operate and manage the workloads in the cloud for you as a managed service.
- Identify reliability issues within your services and alert all development teams to check their services through a common backlog so that both your operations and development teams are working from a collective view and addressing issues in their respective areas.
- Make a significant impact on the strength and efficiency of cloud workload with **multilayer defense**. Plus, Keep **your multicloud environment secure and compliant at any point**.

HARC Delivers

With over 25 years of consulting experience and over 4,000 full-stack cloud engineers ready to help, our approach enables us to deliver on these transformation efforts **3.5 times faster** and achieve **ROIs of 114%**.

Over the last five years, our HARC technical experts have completed the following:

3,100+
Cloud and App Modernization Projects

2,000+
Hyper-scale Technology Certifications

HARC Outcomes

30%
improvement in productivity

15%
improvement in release velocity

35%
in the ongoing cost of operations

Prevents downtime and improves the mean time to detect (MTTD) security threats and response times by **30%**

Identifies and resolves application issues leading to an immediate **60% improvement** in application availability and a **40% improvement** app performance

 **Cost-Optimized**

Problem

Cost overruns increase cloud services' total cost of ownership (TCO). In addition, cloud resources and services are often provisioned inefficiently because KPIs for cloud operation and application development teams need to be aligned. As a result, IT leaders need help forecasting and controlling rising cloud infrastructure costs.

Due to cost overruns, organizations now have insufficient resources (infrastructure, skilled people, etc.) to innovate, build and manage new cloud-native applications in the future.

Solution

HARC provides in-depth FinOps cloud cost analytics to help you accurately assess, predict, and budget your cloud spend.

- Get insights into how to optimize costs by operating with defined governance. Rules and controls for cloud usage and automation for lifecycle management are put into place.
- Map spending data to your business, set tag strategies to organize costs, establish cost-control mechanisms, allocate shared costs equitably and recommend cost take-outs from your cloud platforms.
- Define budgets and forecasts; establish score carding, benchmarking, trend and variance analysis; and set up automated reports, real-time dashboards, and alerts for tracking costs.

HARC Delivers

35%
reduction in the total cost of operations

30%
improvement in productivity

15%
improved operational efficiency

60%
reduction in business risk

360-degree
observability



HARC Outcomes



“Hitachi Vantara’s services have helped to streamline our journey to becoming an agile technology company. In addition to providing ongoing, yearly cost reductions across cloud environments and other savings, they’ve helped us right-size our core infrastructure based on actual consumption, increase our budget capacity for new workloads in the cloud, and improve the operational and financial transparency into our technology and cloud operating environments.”

Michael Mathews
Chief Information Officer, Deluxe Corporation

Conclusion

HARC Helps You Design, Build, Run and Operate Your Cloud Environments with Confidence

At its core, Hitachi Application Reliability Centers bring together people, processes and technologies to run and optimize hybrid cloud workloads. We'll help you scale and automate hybrid and multicloud operations – making sure uptime, reliability, and cloud costs are maintained and managed systematically and continuously.

This is the modern approach your modern cloud workload needs. We bring the innovations of DevSecOps and SRE practices closer together to deliver the most advanced cloud workload management yet. The result: your business is “always-on”, reliability is built in right at the start, cloud cost is always optimized.

ABOUT HITACHI VANTARA

Hitachi Vantara, a wholly-owned subsidiary of Hitachi Ltd., delivers the intelligent data platforms, infrastructure systems, and digital expertise that supports more than 80% of the fortune 100. To learn how Hitachi Vantara turns businesses from data-rich to data-driven through agile digital processes, products, and experiences, visit hitachivantara.com.

Learn More →

Take the next step and create a Center of Excellence for a holistic view of your entire IT environment. Explore the solutions and services Hitachi Application Reliability Centers delivers.

Hitachi Vantara



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